What is claimed is:

1. A method of treating a viral infection in a human comprising administering to a human in need thereof one or more doses of about 200μg to 500 mg/kg/day of sulfated polysaccharide having a percent of sulfur above 2% and below 25%, for a time sufficient to reduce viral load, inhibit viral replication or otherwise achieve a detectable therapeutic response, wherein said time is no more than 14 consecutive days, and wherein said one or more doses cause only non-lethal or recoverable symptoms of toxicity.

2. The method of claim 1 wherein said symptoms of toxicity are hair loss, gastro-intestinal pain, bowel hemorrhaging, listlessness, thrombocytopenia, central nervous system damage, headache, pain, fever, asthenia, chills, malaise, syncope, vasodilatation, nausea, diarrhea, dyspepsia, anorexia, anemia, dizziness, muscle spasm, sinusitis, urticaria, alopecia, anorexia, constipation or anti-coagulation.

3. The method of claim 1 wherein the viral infection is an acute viral infection, a chronic viral infection or an acute episode of a chronic viral infection.

4. The method of claim 1 wherein said sulfated polysaccharide has a percent of sulfur above 6% and below 13%.

5. The method of claim 1 wherein the dose of said sulfated polysaccharide is 200μg to 150 mg/kg/day.

6. The method of claim 1 wherein the dose of said sulfated polysaccharide is 250μg to 100 mg/kg/day.

7. The method of claim 1 wherein the dose of said sulfated polysaccharide is 300μg to 85 mg/kg/day.

8. The method of claim 1 wherein said plurality of doses are administered from one to four times daily for up to 14 days.

9. The method of claim 1 wherein said plurality of doses are administered from one to four times daily for 10 days.

10. The method of claim 1 wherein said plurality of doses are administered from one to four times daily for up to 7 days.

11. The method of claim 1 wherein said plurality of doses are administered from one to four times daily for 5 days.

12. The method of claim 1 wherein said plurality of doses are administered from one to four times daily for 4 days.

13. The method of claim 1 wherein said plurality of doses are administered from one to four times daily for 3 days.

14. The method of claim 1 wherein said plurality of doses are administered from one to four times daily for 2 days.

15. The method of claim 1 wherein said sulfated polysaccharide has a percent of sulfur above 6% and below 22%.

16. The method of claim 15 wherein the percent of sulfur is above 8%.

17. The method of claim 15 wherein the percent of sulfur is above 13%.

18. The method of claim 15 wherein the percent of sulfur is below 17%.

19. The method of claim 1 wherein the sulfated polysaccharide comprises D-glucopyranose residues linked by α-1,6 linkages.

20. The method of claim 1 wherein the sulfated polysaccharide comprises L-glucopyranose residues.

21. The method of claim 1 wherein the sulfated polysaccharide is sulfated dextran.

22. The method of claim 1 wherein the sulfated polysaccharide is dextrin sulfate or carrageenan.

23. The method of claim 1 wherein the sulfated polysaccharide is a co-charged anionic polysaccharide.

24. The method of claim 23 wherein the co-charged anionic polysaccharide is co-charged with carboxymethyl groups, sulfonate groups, sulfate groups or combinations thereof.

25. The method of claim 24 wherein the co-charged anionic polysaccharide is co-charged with carboxymethyl groups.

26. The method of claim 25 wherein the co-charged anionic polysaccharide is carboxymethyl dextran sulfate or carboxymethyl cellulose sulfate.

27. A method of treating a viral infection in a human comprising:

a. administering to a human in need thereof a high dose of a sulfated polysaccharide having a percent of sulfur above 2% and below 25% with respect to the simple sugar residue one to four times daily, and

b. repeating said administering every 2, 3, 4, 5, 6, 7, 10 or 14 days.

28. The method of claims 28 wherein said high dose is 20μg to 500 mg/kg/day.

29. The method of claim 1 further comprising the administration of an additional therapeutic agent or an absorption enhancer.

30. The method of claim 1 wherein said dose is administered parenterally.

31. The method of claim 1 wherein said dose is administered orally.

32. A single unit dosage pharmaceutical composition for treatment of infections which comprises a dose of a sulfated polysaccharide, wherein said dose is 200 μg to 1000 mg per unit; and a pharmaceutically acceptable carrier, excipient or diluent.

33. The composition of claim 32 wherein the single unit dosage is adapted for parenteral or oral delivery.

34. A method of treating a viral infection in a human comprising administering a dose of a sulfated polysaccharide in an amount that is from 50 to 99% of the maximum tolerated dose.

35. The method of claim 34 wherein the human is immunocompromised.

36. The method of claim 34 wherein the administration is an infusion over less than two hours.

37. The method of claim 34 wherein the administration is made once per day for 2, 3, 4, 5, 6 or 7 days.

38. The method of claim 34 wherein the administration is made for less than 4, 3 or 2 days.